

81

Notice of Allowability	Application No.	Applicant(s)	
	09/900,477	KAO ET AL.	
	Examiner	Art Unit	
	Hong Cho	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- ☒ This communication is responsive to amendment filed on 11/6/2006.
- ☒ The allowed claim(s) is/are 3,7-12,17-19 and 22 (renumbered 1-11, respectively).
- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
- ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Marc Ascolese on 12/01/2006.

The application has been amended as follows:

Claim 3, line 15, "determining transit delay data for the node" has been changed to - - wherein determining transit delay data for the node comprising - - .

Reasons for Allowance

2. Claims 3, 7-12, 17-19 and 22 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Claim 3 is allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose identifying transit delay data associated with a node farthest away from the node and dropping the transit delay data associated with a node farthest away from the node prior to appending the node's transit delay data and forwarding the transit delay data including appended transit delay data to an upstream node.

Claim 7 is allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose determining an average transit delay for each the plurality of nodes, the average transit delay computed as the average of a previously determined average transit delay for a given node and newly received delay data associated with the given node.

Claim 8 is allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose computing latency metric as the mathematical average of a previously calculated latency metric indicative of a delay for nodes between the node and the given one of the plurality of downstream nodes and a newly calculated latency metric for a same path based on the received transit delay data.

Claim 10 is allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose recognizing when a packet may be part of a flow, storing flow information for a flow when a routing decision is made that routes a packet in a direction that is not consistent with the shortest path, the flow information including a flow direction selected and a timer, receiving another packet that is part of the flow, determining if a timeout period has expired since a last packet in the flow was sent based on the timer; if the timeout period has not expired, then routing the another packet to the destination based on the flow information including in a direction determined by the flow direction; and updating the timer to reflect a start of a new timeout period.

Claim 17 is allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose calculating a latency metric as

the mathematical average of a previously calculated latency metric and an average transit delay for all nodes between the node and the given destination node.

Claim 22 is allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose fairness logic configured to track flows associated with a node including remembering a last ring on which packets of the flow were forwarded to the node and setting a timer to a value reflective of a longest amount of time a packet will take to reach the node on either ring, receive a packet that is part of a flow and route the packet to the node using the last ring if the timer is unexpired.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 2616

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc

Hong Cho
Patent Examiner
12/8/06

Seema S. Rao
SEEMA S. RAO 12/11/06
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600